Urethral diverticulum

Underdiagnosed

Incidence estimated up to 5% female population

Age 20-60 yrs

Originally thought to be either congenital or acquired – now accepted to be acquired secondary to infection of periurethral glands located in periurethral fascia on vaginal aspect of distal two-thirds of urethra. Largest and most distal of these cysts known as Skene's glands.

Infection and obstruction leads to retention cysts, which rupture into urethra, leading to diverticulum

Presentation

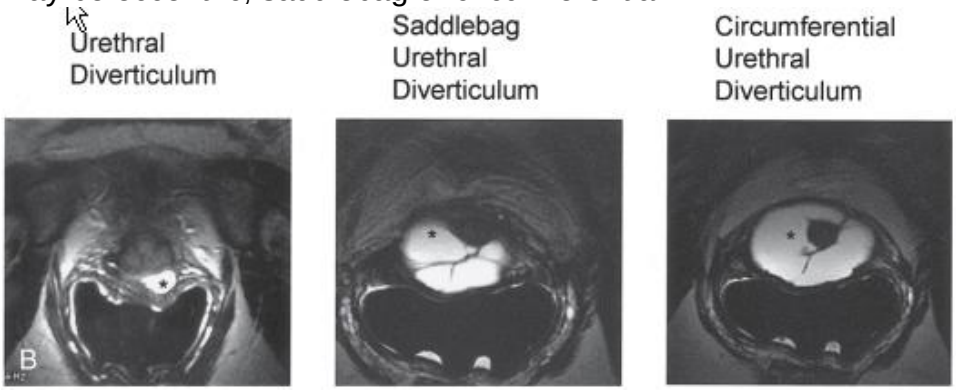
- Classic 3D triad (Dribbling, dysparaeunia, dysuria)
- Haematuria
- Urgency
- Recurrent UTI
- Urinary incontinence

Examination

- None
- Suburethral mass
- Palpable stone
- Expression of purulent material

Pathology

- Common organisms *E. Coli*, *Gonnococcus*, *Chlamydia*
- Lining variable – may be cuboidal, columnar, squamous or transitional
- Very rarely present with urethral carcinoma in diverticulum (usually adenocarcinoma
- May be eccentric, saddlebag or circumferential:



Diagnosis

- High index of suspicion
- Clinical examination
- Flexible cystoscopy (ostium most common in posterolateral mid-urethra)
- Positive pressure retrograde urethrography (largely historical)
- Voiding cystourethrogram
- MRI (T2-weighted detects urine in diverticulum) – perform immediately post-void

Management
- Distal diverticula
  - Spence procedure (marsupialisation)
  - Distal urethrotomy
- Non-distal diverticula
  - Complete urethral diverticulectomy
    - Urethral closure with absorbable sutures
    - Apposition of periurethral layers to avoid overlapping suture lines
    - Coverage with Martius fat pad (superior and inferior pedicles)
    - Catheter drainage
    - Complications

Recurrent UTI	15%
Recurrence	10%
Stress incontinence	10%
Urethro-vaginal fistula	5%
Urethral stricture	2.5%

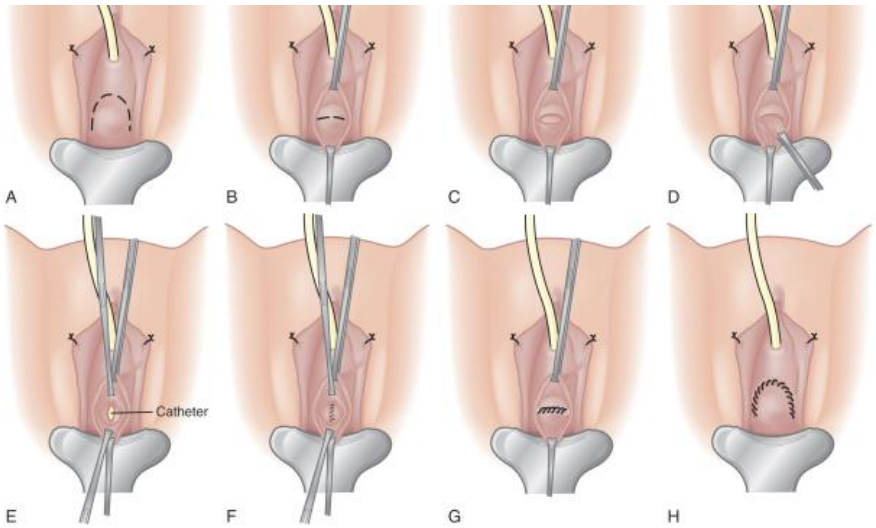


Figure 73-30 **A,** An inverted U incision is marked on the anterior vaginal wall. Retraction is aided by the use of Allis clamps and a ring retractor with hooks. **B,** After reflection of the anterior vaginal wall, a transverse incision is made in the periurethral fascia. The dotted line represents the intended incision line. **C,** The periurethral fascia is incised and dissected from the underlying urethral diverticulum. **D,** The diverticular sac is freed from the periurethral fascia. **E,** The urethral catheter is seen after complete excision of the diverticular sac. **F,** The urethra is closed with absorbable suture. **G,** The periurethral fascia is closed with care to obliterate any dead space. **H,** The anterior vaginal wall flap is advanced over the periurethral suture line and secured with running interlocking absorbable suture.

Differential diagnosis interlabial masses

Women
- Urethral diverticulum
- Vaginal wall leiomyoma
- Skene's gland cyst
- Gartner's cysts (mesonephric duct remnants in vagina)
- Urethral caruncle (inflammatory)
- Urethral mucosal prolapse

Girls
- Skene's gland cysts
- Urethral mucosal prolapse

Prolapsed ectopic urethrocoele (1 mo.- 3yrs)
Vaginal rhabdomyosarcoma (sarcoma botryoides)
Imperforate hymen (newborn)